REMARKS

In the outstanding Office Action, claims 12-25 were presented for examination. Claims 12-25 were rejected under 35 U.S.C. §103 as being obvious. After the submission of the present response claims 1-11 stand cancelled and claims 12-25 are pending. Applicants have traversed these rejections.

Examiner's Response to the Appeal Brief, filed February 29, 2008

Applicants would like to thank Examiner Tony Chuo for reconsideration and withdrawal of the previously presented rejections within the Final Office Action dated August 30, 2007. Applicants would like to extend an invitation to the Examiner for a telephone conference with Applicants Representative, James McPherson, to discuss the present response and any further action necessary to place the present application in condition for allowance.

Rejection under 35 U.S.C. §103

Claims 12 through 25 were rejected as being obvious under 35 U.S.C. §103 based upon U.S. Patent Publication No. 2003/0003339, to Keegan, and in further view of one or more of the following patents or publications: JP 02-238288, to Shiomi et al., U.S. Patent No. 5,138,136, to Moreau et al., JP 06-318736, to Kaneko, U.S. Patent No. 5,753,383, to Cargnelli et al., and U.S. Patent Publication No. 2003/0044662. Applicants respectfully disagree as the suggest modification of Keegan is not consistent with the teaching of Keegan.

For an obviousness rejection to be proper, the Examiner must meet the burden of establishing that all elements of the invention are disclosed in the prior art; that the prior art relied upon, coupled with knowledge generally available in the art at the time

of the invention, must contain some suggestion or incentive that would have motivated the skilled artisan to modify a reference or combined references; and that the proposed modification of the prior art must have had a reasonable expectation of success, determined from the vantage point of the skilled artisan at the time the invention was made. *In re Fine*, 5 U.S.P.Q.2d 1596, 1598 (Fed. Cir. 1988); *In Re Wilson*, 165 U.S.P.Q. 494, 496 (C.C.P.A. 1970).

The Supreme Court in *KSR International Co. v. Teleflex Inc.*, 82 USPQ2d 1385, 1396 (2007) noted that the analysis supporting a rejection under 35 U.S.C. 103 should be made explicit. The Federal Circuit has also stated that "rejections on obviousness cannot be sustained with mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness." *In re Kahn,* 78 USPQ2d 1329, 1336 (Fed. Cir. 2006) (underlining added for emphasis).

Independent claims 12 and 18 recite adjusting a voltage of a power source in response to a measured temperature of a fuel cell assembly to cause heating or cooling the fuel cell assembly. The Examiner acknowledges that this feature is not taught by Keegan. See Office Action p. 3, lines 9-12 and p. 5, lines 1-4. However, the Examiner indicates that this feature is taught by either Shiomi et al. or Moreau et al. With respect to Shiomi et al., the Examiner indicates that the features of Shiomi et al. can be combined with Keegan "in order to utilize a heating method that enables a stable temperature control to be attained." Office Action, p. 3, lines 17-22. With respect to Moreau et al., the Examiner indicates that the features of Moreau et al., can be combined with Keegan "in order to enable a substantial reduction in the difference between the nominal power and the usable power." Office Action, p. 5, lines 9-16. However, in view of the teachings of Keegan, there is simply no advantage or benefit, i.e. "rationale", for making the asserted modifications. Nor does Applicant believe that the motivation presented within the Office Action, described above, provide any further rationale in view of the discussion herein.

Keegan teaches a solid oxide fuel cell (SOFC) stack including a plurality of

electrochemical cells 110, 112, 114 and 116 interposed by interconnects 102, 104, 106 and 108. See p. 3, paragraph 27. The interconnects are provided for uniform heating of the SOFC stack. See p. 2, paragraph 23. This heating is in response to the large amount of time required to heat the SOFC to reach operating temperatures. See Background, p. 1, paragraph 3. Power to the interconnects are provided through power supply 130, which results in heating of the interconnects and the SOFC stack. See p. 3, paragraph 29. Once the interconnects reach a sufficient temperature, power to the interconnects is terminated. See p. 3, paragraph 31.

In sum, the heaters of the SOFC stack of Keegan are for the sole purpose of decreasing the time required for the SOFC to reach efficient operating temperatures. Thereafter, no further heating is necessary by the interconnects as the SOFC stack itself provides additional heating. The suggested modification of Keegan, to continually monitor the temperature of a SOFC stack and adjust the voltage to the power source, simply provides no benefit or advantage to the SOFC stack of Keegan since the sole purpose of interconnects (i.e. heaters) is to bring the SOFC stack to efficient operating temperatures. Further, due to the additional heat generated by the SOFC, interconnect heating is not even necessary. Accordingly, there is no rationale for adjusting a voltage of a power source of Keegan in response to a measured temperature of a fuel cell assembly to cause heating or cooling the fuel cell assembly. Also, the motivation provided by the Examiner, as described above, does not make up for this deficiency.

For the reasons stated above, Applicants are of the opinion that, presently, a prima facie case of obviousness has not been formulated as there lacks "some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness" to support a finding of obviousness. Accordingly, Applicants have traversed the rejections of independent claims 1 and 18, and inherently dependent claims 2-17 and 19-25, under 35 U.S.C. §103. As such, claims 12-25 are now believed to be in condition for allowance.

In view of the above amendments and the discussion relating thereto, it is respectfully submitted that the present application is in condition for allowance. Such

action is most earnestly solicited. If for any reason the Examiner feels that consultation with Applicants' attorney would be helpful in the advancement of the prosecution, the Examiner is invited to call the telephone number below for an interview.

Applicant hereby petitions under 37 CFR 1.136 and other applicable rules to have the response period extended the number of months necessary to render the attached communication timely in the event a petition is required. If there are any charges due with respect to this Amendment or otherwise, please charge them to Deposit Account No. 06-1130, maintained by the applicant's attorney.

Respectfully submitted,

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